

### Abstract

Described is a method for communicating information signals via respective channels, each having at least one subchannel, of a multichannel communications link between a transmitting node and a receiving node of a data communications network. The method comprises the steps of: at the receiving node, determining for each subchannel of each channel, in dependence on the signal to noise ratio of the channel and a target transmission rate for the information signal over that channel, a gain factor to be applied at the subchannel signal at the transmitting node to effect transmission of the information signal to the receiving node with minimum transmission power; communicating the gain factors for each subchannel signal from the receiving node to the transmitting node; applying the gain factors to the corresponding subchannel signals at the transmitting node; and, at the receiving node, for each subchannel of each channel, partitioning the subchannels of the other channels into high crosstalk subchannels and low crosstalk subchannels, and decoding the subchannel signal in dependence on the or each high crosstalk subchannel signal. Communications systems and receivers for performing such a method are also described, together with computer program products for such receivers.

2001-09-27 15:00:00